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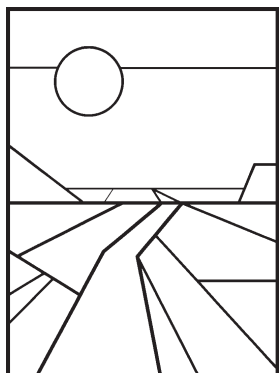
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# PURDUE AGRICULTURAL ECONOMICS REPORT

MAY 2008

## Return of the Good Times: How Long Will They Last?

*Michael Boehlje, Distinguished Professor*

**W**ithout a doubt, crop agriculture is experiencing the best times it has had in decades. So the question is how long will this last? Like most commodity industries, agriculture is a cyclical business, but the key question is whether the next cycle will be from a higher plateau. Answering the question of whether these good times for crop agriculture are sustainable is difficult, but one way to obtain some insight into the answer is to assess the current and future supply and demand forces shaping the industry. In the spirit of helping you discover your own answer, we will here attempt to identify what to watch. Five fundamental forces – three influencing demand and two influencing supply – will shape the future of the agricultural industry. We will discuss each in turn.

### Ethanol and energy –

Ethanol will be using almost 30% of the U.S. corn crop by 2009 with total ethanol production reaching almost 14 billion gallons. Numerous analysts have suggested that total demand for ethanol longer term is likely to be approximately 15 billion gallons from corn with the additional renewable fuels coming primarily from other sources such as cellulosic ethanol. In fact, some are concerned that within the next 12 to 18 months,

ethanol supplies in excess of 12 billion gallons may be difficult to absorb in the market because of inadequate transportation/logistics and refining capacity to move the product into the fuel supplies on the East and West coasts. Even Federal Renewable Energy policy suggests that corn based ethanol is not expected to fulfill more than 15 billion gallons of the mandated 36 billion gallons of renewable energy that is required to be produced by 2022. Further challenges to the continued growth of the ethanol industry are the growing food – fuel debate precipitated in part by rising food costs which some blame on increased use of agricultural products for the energy rather than the nutrition markets; the current debate about whether ethanol and bio-fuels in general are as environmentally responsive as originally perceived and whether they may actually contribute to green house gases and global warming rather than mitigate those problems; the debate about continuing or reducing the \$.51 per gallon subsidy for ethanol production when it expires in 2010; the increased discussion of reducing the \$.54 tariff and the import quotas on Brazilian ethanol imports given that corn based ethanol is 20% more expensive to produce than sugar based ethanol in Brazil; the slow growth in the E85 market and

distribution capacity and the fact that a 10% blend of ethanol will likely only require approximately 14 billion gallons (given that mobile fuel consumption totals only 140 to 150 billion gallons in the U.S.) unless the E85 market expands rapidly and/or the automobile industry warranties engines above the 10% blend; and the margin pressure and profitability prospects for ethanol producers with \$4.00 plus corn prices if ethanol prices decline back below \$2.00 per gallon. The corn based ethanol industry may encounter some short-term growing pains, but the 36 billion gallon mandate for renewable energy by 2022 suggests increased crop-based energy demand. In essence, the key questions are whether corn-based ethanol demand will mature, and how quickly will other biological sources of renewable

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fuels such as cellulosic materials be commercially available.

### Exports and exchange rates –

Most analysts expected that the increased use of corn for ethanol production would come at the expense of exports, but that has not been the case. Exports of corn as well as soybeans and wheat have in fact grown dramatically in the past 2 years. The fundamental reasons for that growth are the continued strong economies and purchasing power of China, India and much of Asia — as well as the declining value of the dollar; the dollar has declined not only relative to those countries buying our grain products, but it has also declined relative to the currencies of competing exporters of those products. The value of the dollar currently is below the record low levels of the mid-1990s, and this has resulted in prices of agricultural products in importing countries being only modestly higher than 2-3 years ago when we experienced a much stronger dollar but almost 50 percent lower commodity prices. So it is critical to watch the growth in personal income and food demand in Asia and foreign exchange rates and currency values to understand whether or not the foreign demand for U.S. agricultural products will continue to be strong.

However, the declining value of the dollar is a two-edged sword

relative to the agricultural industry. Although a lower currency value increases our competitiveness in selling agricultural products in global markets, it also increases the cost of imports. And an increasingly larger proportion of agricultural inputs are being imported rather than produced domestically. In contrast to 3-5 years ago when a vast majority of our fertilizer was produced domestically, almost two-thirds of our nitrogen is now imported and P&K are also increasingly sourced from outside the U.S. borders. The same is true increasingly of chemicals for pest control. A significant explanation for the dramatic increase in the cost of production for corn, soybeans and wheat in the Midwest (a 50 to 60 percent increase in production costs) is the increased dependency on imported raw materials and the higher cost due to increased transportation costs as well as the lower value of the dollar.

### The food vs. fuel debate –

The food vs. fuel debate is in reality not a serious debate in the developed countries of North America and Western Europe. Certainly, food prices have increased in the developed and developing world as a result of higher energy related transportation costs; weather related shortages of some products — particularly wheat; and increased

bio-fuels demand for agricultural raw materials historically used only in the nutrition markets including sugar, palm oil, soybean and other vegetable oils and corn. Higher food prices faced in North America and Western Europe are likely to result in only small shifts in food consumption patterns. However, the prospects for a reduction in the growth of animal protein consumption in the developing countries is real. Prior to the growth in the energy driven demand for agricultural raw materials, the exciting longer-term opportunity for U.S. agriculture was the growing demand in the rest of the world for animal proteins. As consumers in China and Asia in general experienced growing real incomes, they were beginning to change their diets from a primarily vegetable-based protein diet to an animal protein-based diet. In fact, this dietary transition and the longer-term sustainability of income growth in the rest of the world was the growth story for U.S. agriculture prior to ethanol. But bio-fuels is changing and challenging that story. First, higher feedstuffs prices have and will continue to result over time in higher costs of production to produce animal proteins, and thus higher prices for a smaller animal protein industry. These higher prices for animal proteins are pricing that product out of the diet of many potential consumers in the developing world. Animal protein consumption is very responsive to higher prices i.e. the quantity purchased declines significantly with higher prices. And higher food prices in general are reducing the real purchasing power of those consumers who spend 60-70 percent of their disposable income on food compared to 10 percent in the U.S. The result in essence is a significant deceleration of the speed of dietary transition from vegetable to animal based proteins, and thus a slowdown in the growth in global demand for animal and meat products. To put this issue in context, one must remember that the growth in demand for agricultural products prior to ethanol was not from the

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#### Editor

Gerald A. Harrison  
Purdue University  
Department of Agricultural Economics  
403 W State Street  
West Lafayette, IN 47907-2056  
E mail: harrisog@purdue.edu  
Phone: 765 494 4216 or  
toll free 1 888 398 4636 Ext. 44216

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domestic food market, but from the export market; and the fastest growing agricultural exports were in fact the animal protein complex. As noted earlier, income is growing rapidly in China and India, in particular, and they are using much of that increased income to buy food – particularly meat and animal products. But if the demand from the bio-fuels market for agricultural raw materials keeps feed costs and thus the cost and price of meat and animal products high, the concern is that the growth in global animal protein consumption may be stymied because of these higher prices.

Furthermore, this potential slow down in the growth in demand for animal proteins combined with the increased expansion of animal production in the rest of the world – Brazil, Poland and Eastern Europe, China and East Asia – and the current increasingly skeptical attitude in the U.S. about the value and importance of exports and free trade as exemplified by a non-compliant current and proposed Farm Bill and recent protectionist perspectives surfacing in the political dialogue, present serious challenges to U.S. participation in global animal protein markets. In essence, if ethanol demand matures and we have blunted the growth in global animal protein demand as well as positioned the U.S. to not be as successful a competitor in supplying that reduced demand, what is the next cycle of demand growth which is essential to maintain high grain prices and a strong agriculture as we continue to increase production capacity through productivity-increasing technology adoption?

#### **Global production –**

As implied earlier, in the long run food production can increase significantly in the rest of the world because, in contrast to most of history, global access to both production technology and financial capital has profoundly changed the constraints and unshackled the productive capacity and capability in much of the rest of the world. In the U.S., most of the land and water needed

for agricultural production is being fully utilized, and allocation of additional land and water resources to agricultural production is highly unlikely. In essence, the “plant” in terms of crop production is operating close to full capacity. This is clearly not the case in much of South America (Brazil, Uruguay, Bolivia and Argentina) as well as in parts of Eastern Europe where adoption of new technology and market driven business models have the potential to dramatically increase agricultural output. U.S. animal production is not constrained by the same land and water resources, but expansion in the animal industries faces equally limiting constraints with respect to siting livestock facilities and the regulatory permitting process. Most food companies globally source and sell and although transportation and logistics costs are rising, they are unlikely to reverse the continuing trend of increased global rather than local production of food products. In essence, the U.S. will face increasingly global competition in a business climate where agricultural production can be more cost effectively expanded in other countries than it can in the U.S. Longer term, agricultural output is likely to grow more rapidly in the Americas in the Southern hemisphere compared to the Northern hemisphere, and in Europe in the East including countries of the former Soviet Union compared to the West.

#### **Weather and wheat –**

Weather worldwide continues to have a profound impact on production and supplies even in spite of new genetics. Although corn and soybean producers in the Midwest have continued to see increasing yields over the past 5-10 years with little weather disruption, that is not the case for South America nor for wheat production globally. In fact, world wheat output has suffered from yield reducing weather events for the past 5 years. Weather patterns are clearly unpredictable, but continued weather-shortened wheat crops for the next five years is not a likely. Furthermore, the current high

prices for wheat suggest significant expanded production in wheat acreage throughout the world, and one should remember that many more locales in the world have the capacity to produce acceptable wheat yields compared to corn and soybean yields that require generally better soils as well as larger quantities of water and more predictable moisture conditions. A significant increase in wheat acreage combined with more normal weather events could result in a relatively quick – say 3-4 years – change in the wheat supply-demand balance from one of current shortages to fully adequate if not burdensome supplies. And if that is the case, wheat prices will decline dramatically, and what is now primarily a food product would again become a feed product substituting for corn and other energy sources in livestock rations. One should not forget the old pricing adage that “wheat caps corn” – if increased wheat supplies would result in wheat prices declining to for example \$5.00, it will be difficult to maintain corn prices much above \$4.50 because of the 10 percent higher nutritional value of wheat in livestock rations. The crop to watch in terms of acreage, yield and production may be very likely wheat – current high prices encourage significant expansion in global production; wheat is more adaptable throughout the world to a variety of soil and weather conditions and thus production capacity expansion is much less limited compared to corn and soybeans; and global weather may be more favorable for wheat production during the next three or four years. In essence, wheat production and prices may be the bell-wether of the future of the cropping sector during the next 3-5 years.

#### **So what? –**

Certainly other forces within the agricultural sector as well as outside the industry could have important implications for the continuation of strong prices and incomes for the next 3-5 years. A world-wide recession

combined with high food prices would have a dampening effect on global food demand and thus prices and incomes. Weather shortened global supplies could result in even further increases in commodity prices and incomes. Continued rising cost of fertilizer, seed and chemicals along with higher land prices and rents will continue to eat away at the current high margins for tenants we see in crop production; total costs to produce the 2008 crop have increased by 50-60 percent from 2007 to

approximately \$4.00 for corn, \$9.00 for soybeans and \$6.00 for wheat.

The agricultural industry is currently well positioned financially to buffer some weakness in prices and/or increase in costs – margins are currently high by historical standards and could be reduced without creating significant losses for crop farmers, and the debt load in the industry is currently low which combined with relatively low interest rates suggest that widespread financial stress similar to that experienced in the 1980s is highly

unlikely even if we do experience some price declines and margin compression. The key however is to monitor the changing business climate for the industry and position for the unknown. We may be in a new paradigm of perpetual prosperity for agriculture, but that is very atypical of any commodity industry. Monitoring the five forces we have summarized here may help you assess how long this prosperity will continue and when the cyclical downturn will occur. It is highly likely that history will repeat itself.

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## Indiana's 2008 Property Tax Reforms Part 1

*Larry DeBoer, Professor*

**H**omeowner tax bills increased substantially in many Indiana counties in 2007. Taxpayers and voters registered their unhappiness in protests and at the polls. During the 2008 short session the Governor and General Assembly responded with the most sweeping reform of property taxes and local government finance in at least 35 years.

Homeowner property taxes will fall substantially. Ceilings were placed on all property tax bills, and the legislature began the process to amend these limits into the state Constitution. The sales tax has already increased.

### Homeowner tax relief.

In 1973 the Bowen administration and the General Assembly enacted across-the-board property tax relief, called property tax replacement credits (PTRC). All property owners received a 20% property tax reduction, and revenue from an increase in the sales tax was used to replace the revenue losses of local governments. With many modifications, this system has lasted until now.

In 2008, however, Governor Daniels and the General Assembly have taken a different approach. Instead of across-the-board relief, entire local government functions

that are supported by local property tax levies will be funded by state revenues instead. The state will take over the school general fund, the various county child welfare funds, and several smaller functions, including payments for juvenile incarceration in state facilities, some police and fire pension payments, and payments for indigent hospital care. The state will also eliminate the very small state property tax levies, used mainly for the State Fair and a forestry fund. These functions make up about 30% of all property taxes, and by 2010 are expected to amount to \$2.8 billion.

Funding for this new state spending will come from two main sources. The sales tax increased from 6% to 7% on April 1, 2008. By 2010 this will provide about \$1 billion in added state revenue. Most of the remaining revenue will come from the existing property tax replacement credits and homestead credits. The PTRC and homestead credits will no longer be subtracted from property tax bills. The revenue that had been paid to local governments to replace these reduced property taxes will instead be used to fund the state levy takeovers. Existing property tax relief will be used a different way, so it is not a net gain in property tax relief.

Added relief will come from the new sales tax revenue.

The elimination of property taxes for school general fund and county welfare levies will reduce property tax rates, but not all taxpayers will share in the tax relief. The tax relief will be directed to homeowners with a new homestead deduction. The deduction equals 35% of a homestead's assessed value, after the existing \$45,000 homestead deduction is subtracted, up to a value of \$600,000. Beyond that the deduction is 25%. This is a large additional deduction that will reduce statewide taxable assessed value by about 15%.

Tax rates are set by dividing a local jurisdiction's levy—the revenue collected from the property tax—by a jurisdiction's assessed value. The state takeovers will reduce county and school levies, but the lower assessed value means that tax rates will not drop as much. Across the state, tax rates will fall, but not quite enough to offset the elimination of the property tax replacement and homestead credits. Many taxpayers whose assessments don't change will see small increases in their tax bills. Homeowners pay less, because the new homestead deduction reduces their assessments. Homeowner taxes are expected to drop about a third,



statewide, from what they would have been.

The state levy takeovers and new homestead deduction begin in 2009. In 2008 homeowners will receive significant property tax relief through an extra homestead credit, which is a percentage reduction in tax bills. This will be funded with the added sales tax collections from April through December, 2008. The temporary credits phase out in 2009 and 2010. They have the effect of advancing the one-third reduction in homeowner taxes from 2009 to 2008.

This means that the way tax relief is provided will change between 2008 and 2009. Some counties fare better with one method; some fare better with the other. In counties where PTRC and homestead credits are relatively high, but the school and welfare share of the tax levy is relatively low, homeowner taxes will increase between 2008 and 2009. Homeowner taxes will still be lower than they were in 2007, or than they would have been under the current system, but the tax break in 2008 will be greater than the break in 2009.

#### Renters and low income households.

Renters pay the added sales tax, but do not own taxable property and so receive no direct property tax relief. To lessen the impact on

renters, HEA1001 increases the renters state income tax deduction from \$2,500 to \$3,000. At the 3.4% state rate plus a 1% local rate, this reduction in taxable income would save a renter \$22.

Lower income households receive an added state income tax benefit through an increase in the Indiana earned income credit. The Federal government provides an earned income credit to households with earned incomes less than about \$40,000. It takes the form of an income tax refund, which is paid whether or not the household owes income taxes. Indiana has provided its own credit, calculated at 6% of the Federal credit. HEA1001 raises the Indiana earned income credit to 9% of the Federal credit.

HEA1001 also offers an added tax break to lower income homeowners aged 65 and over. Those who own a home assessed at less than \$160,000, with an adjusted gross income of \$30,000 (single return) or \$40,000 (joint return) can receive a tax credit to hold their property tax increases to 2% per year.

#### Circuit breakers.

The 35% homestead deduction provides most of the new property tax relief for homeowners. Much of the focus during the legislative session, however, was on the new "circuit breakers," which will phase

in by 2010. The circuit breakers limit property tax bills to a maximum percentage of the gross assessed value of a taxpayer's property. Gross assessed value is the assessed value before any deductions.

A circuit breaker for homeowners was already scheduled to take effect for tax bills in 2008. The maximum limit is 2% of gross assessed value. The new legislation reduces this maximum to 1.5% in 2009, and 1% in 2010 and after. Circuit breaker limits for rental housing, farm land and long-term care facilities will be 2.5% in 2009 and 2% in 2010 and after. Circuit breaker limits for all other property will be 3.5% in 2009 and 3% in 2010 and after. This property is mostly commercial, industrial and utility land, buildings and equipment, and agricultural buildings and equipment. It includes vacation homes.

The General Assembly also passed a joint resolution to amend the circuit breaker limits into the state Constitution. This starts the amendment process. The resolution must pass the next legislature, in either 2009 or 2010, and then be approved by a voter referendum, for the Constitution to be amended.

#### How the circuit breakers work.

Consider a home with a market value of \$120,000, in a taxing district with a property tax rate of \$2 per \$100

Table 1. Taxpayer examples

	Homestead One	Homestead Two	Homestead Three	Farm Land (100 Acres)	Rental Apartment	Business Property
Gross Assessed Value	120,000	120,000	400,000	120,000	120,000	120,000
Homestead Deduction	45,000	45,000	45,000	-	-	-
Remainder	75,000	75,000	355,000	120,000	120,000	120,000
35% Supplemental Deduction	26,250	26,250	124,250	-	-	-
Mortgage Deduction	3,000	3,000	3,000	-	-	-
Taxable Assessed Value	45,750	45,750	227,750	120,000	120,000	120,000
Tax Rate (per \$100 AV)	2.00	3.00	2.00	2.00	2.50	2.50
Gross Tax Bill	915	1,373	4,555	2,400	3,000	3,000
Circuit Breaker Rate	1%	1%	1%	2%	2%	3%
Circuit Breaker Limit	1,200	1,200	4,000	2,400	2,400	3,600
Circuit Breaker Credit	-	173	555	-	600	-
Net Tax Bill	915	1,200	4,000	2,400	2,400	3,000

assessed value (2%). This is Homestead One in Table 1. Suppose the county assessor gets it right, so that the gross assessed value of the home is \$120,000. Suppose the home is occupied by its owner, and is the owner's primary residence, so it is eligible for the homestead deductions. The existing deduction is \$45,000, which leaves a remainder of \$75,000. The new supplemental homestead deduction subtracts another 35% of this remainder, or \$26,250, leaving \$48,750. Most homeowners also receive the existing \$3,000 mortgage deduction. Its taxable value is \$45,750. Assume a \$2 tax rate, multiply by net assessed value, and the tax bill is \$915. If the year is after 2010, there are no additional calculations. State property tax replacement credits and homestead credits have been eliminated, though there could be local credits.

The homeowner's circuit breaker credit limit is 1% of gross assessed value, \$1,200. Since the \$915 tax bill is less than this limit, the homeowner would not receive a circuit breaker credit.

Suppose instead that the tax rate had been \$3 per \$100 assessed value (Table 1, Homestead Two). These calculations would result in a tax bill of \$1,373, which is higher than the circuit breaker limit. The taxpayer would receive a credit of \$173, which would bring the tax bill down to the \$1,200 maximum. Local governments would not collect the amount of the credit.

Suppose the tax rate is back at \$2, but the home is worth \$400,000 (Table 1, Homestead Three). After deductions, the taxable value is

\$227,750. At the \$2 tax rate, the tax bill is \$4,555, greater than the 1% circuit breaker maximum of \$4,000. This homeowner would receive a \$555 circuit breaker credit, and local governments would not collect this amount.

These examples show which homeowner property will be eligible for the circuit breaker credit: moderately valued homes in areas with high tax rates, and expensive homes in areas with moderate tax rates. Places with higher tax rates will see more homeowners eligible for the circuit breaker credit. In a jurisdiction with a more typical \$2 tax rate, though, more expensive homes are more likely to receive a credit, while less expensive homes likely will not. This is because of the fixed \$45,000 standard deduction. It is a large part of the lower valued home's assessment (about 38%), but a small part of the expensive home's assessment (just 11%). As a result, before the circuit breaker more expensive homes are taxed at a higher percentage of gross assessed value. After the circuit breaker, this percentage is limited to 1%.

Circuit breaker calculations for other property can be much simpler. An acre of farm land assessed at \$1,200 has a 2% circuit breaker limit, which is \$24 (Table 1, Farm Land). The tax bill on this acre cannot exceed this amount. Farm ground rarely receives deductions, and without the property tax replacement credits, there will be no credits (other than local credits in some places). The tax bill is the assessed value times the tax rate. If the tax rate is higher than \$2 per \$100 assessed

value, the land owner would receive a circuit breaker credit.

#### Circuit breaker tax cuts.

Homeowners in higher tax counties and owners of expensive homes in average tax counties will see tax reductions due to the circuit breaker. However, almost all of the tax relief received by homeowners will come from the increased homestead deduction, not the 1% circuit breaker.

This is shown in Table 2, which divides tax relief into two parts. The top line shows the effects of the state levy takeovers and the new homestead deduction. The average homeowner statewide would see taxes almost 32% lower than under our existing tax system (Indiana Legislative Services Agency 2008a). Other property owners see tax increases. The effect of the circuit breakers is shown in the second line. Homeowners receive a small amount of added tax relief as a result of the circuit breakers. Owners of rental housing are the taxpayers who benefit most from the circuit breaker credits. "Non-homestead residential" property is mostly small rental housing units.

To see why landlords benefit most from the circuit breakers, consider three properties, a home, a small apartment, and a small business property, each assessed at \$120,000. These are shown in Table 1 as Homestead One, Rental Apartment and Business Property. The circuit breakers limit the homeowner's tax to \$1,200, the landlord's tax to \$2,400, and the business owner's tax to \$3,600. The home receives homestead deductions which

Table 2. Estimated Impact of Indiana's New Tax Reform (HEA 1001) on Property Tax Payments, 2010

	Homesteads	Non-Homestead Residential	Commercial Apartments	Other Real Property	Personal Property	Total
<i>Change from Taxes Under Current Law due to:</i>						
Levy Takeovers, 35% Homestead Deduction	-31.7%	6.1%	7.3%	6.5%	0.0%	-10.4%
Circuit Breaker 1/2/3 Limits	-4.6%	-18.7%	-21.3%	-4.3%	-4.4%	-7.2%
Total	-36.3%	-12.6%	-14.0%	2.2%	-4.4%	-17.6%

Source: Legislative Services Agency, "Estimated Impact on Net Property Tax, HB1001 (2008) CC08 Update", March 13, 2008.

reduce its taxable assessed value to \$45,750. Suppose the apartment and the business building receives no deductions.

At a \$2 tax rate, none of these properties is eligible for the circuit breaker. The home has a circuit breaker limit of 1%, but it is applied to the gross assessed value of the home. The tax rate applies to the net assessed value, after deductions, and homeowners get a lot of deductions. The homeowner’s tax bill is \$975, less than the \$1,200 limit. The landlord’s and business owner’s tax bills are both \$2,400. This is equal to the landlord’s 2% circuit breaker limit, but less than the business owner’s 3% circuit breaker limit.

Now, suppose the tax rate is \$2.50. The homeowner’s tax bill would be \$1,144, still below the 1% limit. The homeowner receives no circuit breaker credit. The landlord and business owners’ tax bills are \$3,000. The business owner receives no circuit breaker credit, because the 3% limit applies. The landlord receives a \$600 credit, because the tax bill is greater than the 2% limit of \$2,400.

Owners of rental property will receive the biggest circuit breaker credits, because they don’t receive deductions like homeowners do, and their circuit breaker limit is less than those applied to other business property. Farm land is in the same circuit breaker category as rental housing. Rental housing is mostly in cities, however, so its owners pay higher tax rates and will be eligible for more circuit breaker credits. Farm land is mostly in unincorporated areas—outside of cities and towns. Its owners pay lower tax rates and few will be eligible for the credits.

**Revenue losses by local governments.**

The circuit breaker credits are the first property tax credits Indiana has ever offered that are not funded by the state budget. The earlier property tax replacement credit and the homestead credit reduced property tax bills, but the revenue lost by local governments was replaced by state

funds. The circuit breaker revenue losses will not be replaced.

Consider Homestead Two in Table 1, the \$120,000 home in a jurisdiction with a \$3 tax rate. The taxpayer received a \$173 circuit breaker credit. The example in Table 3 supposes that the \$3 tax rate is the sum of a \$0.75 county rate, a \$1.00 city rate, a \$0.75 school corporation rate, and \$0.50 in rates for other units (townships, library districts, other special districts). Each unit would share in the lost \$173 from this homeowner, based on the share of each in the total tax rate. The city’s \$1.00 rate is one-third of the total rate, so it would lose one-third of the homeowner’s circuit breaker credit, about \$58. The county and school corporation would each lose \$43, and the other units would lose the rest.

By 2010 local governments as a whole are projected to lose (and taxpayers to keep) \$524 million, about 8% of total property tax revenue, and 5% of total local budgets (Indiana Legislative Services Agency 2008c). About \$300 million of these losses are in three counties, Lake, Marion and St. Joseph. The losses for Lake and St. Joseph would have been larger, but the legislature provided that property taxes for debt service—the repayment of bond borrowing—will be exempt for the circuit breaker limits in those two counties. About \$159 million will be lost by school corporations in 2010 and the legislature made additional appropriations to partially offset these losses in the corporations that are most affected.

Cities and towns are projected to lose the most, \$188 million in 2010. Cities add an extra layer to each taxpayer’s tax rate, making more property eligible for the circuit breakers. And, city tax rates will increase as a result of the tax reform. No city levies will be taken over by the state, but the new homestead deduction will reduce total assessed value. Rates will have to be higher to maintain city tax levies.

**New budgeting challenges.**

The circuit breakers create a new wrinkle in the local budget process. In places with significant circuit breaker credits, local budgets will be interdependent. For example, if the school corporation in Table 3 were to raise its \$0.75 tax rate to \$1.00, the total tax rate would be \$3.25. At this rate the homeowner’s tax bill would be \$1,487, but the \$1,200 circuit breaker maximum would be unchanged. The homeowner’s circuit breaker tax credit would rise to \$287, so he or she would continue to pay \$1,200. The school corporation’s revenue would increase. Its revenue from this taxpayer would be its rate times the net assessed value, less its share of the circuit breaker credit. It would receive \$69 more of the taxpayer’s \$1,200. The other units would give up that \$69 dollars. Their tax rates are unchanged, but their circuit breaker losses are greater. A tax rate hike by one local government can create revenue losses for other local governments.

This could be a new challenge for the budgeting process. In places with lots of circuit breaker credits, each jurisdiction cannot know how much

Table 3. Tax Payment Example

	Tax Rate	Tax Payment	Circuit Breaker Loss	New Tax Rate	New Tax Payment	New Circ. Breaker Loss	Change in Tax Payment
County	0.75	300	43	0.75	277	66	(23)
City/Town	1.00	400	58	1.00	369	88	(31)
School Corp.	0.75	300	43	1.00	369	88	69
Other	0.50	200	29	0.50	185	44	(15)
Total	3.00	1,200	173	3.25	1,200	287	-



property tax revenue it will receive in the coming year until it knows the rates that will be charged by the overlapping jurisdictions. No one can budget until everyone budgets. Local officials may need to consult with one another before setting their budgets, something that has not been necessary in the past. HEA1001 recognizes this difficulty. It provides that jurisdictions must submit their budget and tax proposals to the county council before they are final. The council is required to make non-binding recommendations about these proposals. In addition, though,

the council could serve as a clearing-house for the tax information that all the jurisdictions need in order to set their own budgets.

#### Conclusion.

There's more. The circuit breaker credits create additional issues for local policy. HEA1001 requires referenda for bigger capital projects, and shifts most assessing duties to the counties. And, with homeowner property taxes falling, and the sales tax rising, do households pay more or less in total? More analysis needs

doing. Part 2 of this article will address some of these issues.

#### Sources

Indiana Legislative Services Agency. 2008a.

"Estimated Impact on Net Property Tax, HB1001 CC08 Update" (March 13).

Indiana Legislative Services Agency. 2008b.

"Fiscal Impact Statement, HB1001." (March 20).

Indiana Legislative Services Agency. 2008c.

"Potential Circuit Breaker Tax Credits, HEA 1001 (2008)." (March 17).

For more information, see the Indiana Local Government Information website, [www.agecon.purdue.edu/crd/Localgov](http://www.agecon.purdue.edu/crd/Localgov).

## New Faculty



**Dr. Bruce Erickson**



**Dr. W. Scott Downey**

**D**r. Bruce Erickson has accepted a new position as the Director of Cropping Systems Management.

He brings a varied background that includes agronomic sales support, competency-based education and assessment, marketing and educational consulting with agribusinesses and government agencies, and research related to precision agriculture. In this new role, Erickson will work with producers, agribusinesses, farm organizations, and with faculty/extension specialists across campus to provide leadership for the Top Farmer Crop Workshop and the Site-Specific Management Center, conduct applied research related to farm management, and deliver programs to address specific issues related to crop production. He earned

his B.S. in Agronomy and his M.S. in Crop Production and Physiology from Iowa State University, and his Ph.D. in Agronomy from Purdue University. Bruce and his wife Kathleen live outside Lafayette with their children Emily, Mary Grace, and Dane.

**D**r. W. Scott Downey has been named assistant professor of selling and sales management, beginning in the fall of 2007, after completing his doctorate at Purdue University. This is a joint appointment with the Department of Consumer Sciences and Retailing in the College of Consumer and Family Sciences at Purdue University. Dr. Downey's dissertation research examined the relational sales preferences of

ruralopolitan buyers. Other research interests include key account management and factors affecting the attitudes of large dairy owners. He has taught undergraduate courses in professional selling, marketing, strategy and finance, and has been a frequent contributor to agribusiness trade publications. Dr. Downey will retain his position as associate director of the Center for Food and Agricultural Business, where he has directed and instructed programs over the last seven years. Prior to joining the University in 2000, Dr. Downey spent 15 years in the financial services industry. He received his B.S. from Purdue University in 1985, and his MBA from Cal Poly in 1991. He resides in West Lafayette with his wife, Laura, and their two daughters, Erica and Micayla.

# 76th Annual Indiana Farm Management Tour

Bartholomew and Jackson Counties  
June 24 and 25, 2008

Tuesday June 24, 2008

**Registration:** The public is invited. Preregistration is required to participate in the dinner on June 24, the lunch on June 25, and the tour of Irwin Gardens. There is no charge for either meal or garden tour. **Please pre-register by Monday June 16 by calling 1-888-EXT-INFO or 812-379-1665.**

**1) B & A Thompson Grain Farms – Interview at 1:00 p.m. All times are Eastern Daylight Time. Mini-tours at 1:35 p.m. (pick three of the four) on surface and subsurface drainage, organizing your business to facilitate succession planning, crop monitoring and scouting, and no-till fertility management.**

The fifth generation of management for the Thompson farm is in the process of developing the skills needed to provide future leadership. Learn how this family is approaching the important process of transferring management and assets. This farm visit will also provide a good place to pick up pointers for improving your cropping system. We will also see an interesting collection of tractors.

**2) Brandt Farms – Interview at 3:00 p.m. Mini-tours at 3:30 p.m. on the Indiana Classified Forest Program, rotational grazing, and milk marketing by Organic Valley.**

Justin Burbrink operates Brandt Farms, a small organic dairy. Justin started as a conventional dairy in 2001. He started selling certified organic milk in 2007 to Organic Valley, a farmer-owned cooperative that is one of the largest buyers of organic milk. Today, the farm consists of 160 acres of certified organic farm ground and 47 cows being milked. All feed is raised on the farm. Justin uses intensive rotational grazing and raises organic silage and corn. In addition, the whole farm is in

grassland preservation, the riparian zones and windbreaks are in CRP, and the woodland is in the Indiana Classified Forest Program.

**3) 4-H Community Building – Dinner at 5:30 p.m. Program at 6:00 p.m.** A panel discussion on Transferring Your Farm Business to the Next Generation, with Attorney Jeff Washburn and Purdue Specialist Alan Miller answering your questions and two local farmers sharing lessons learned.

**4) Irwin Gardens – 8:00 p.m.** Participants will be able to walk the gardens at the historic home of the Irwin-Sweeney-Miller family. A tour guide will discuss the history of the gardens. The gardens are located at 5th and Lafayette streets in downtown Columbus. **Call 1-888-EXT-INFO to pre-register.**

Wednesday June 25, 2008

**5) Elsbury Greenhouses – Interview at 8:00 a.m. Mini-tours at 8:40 a.m. of the garden center, outdoor mum production, and the environmental computer system.**

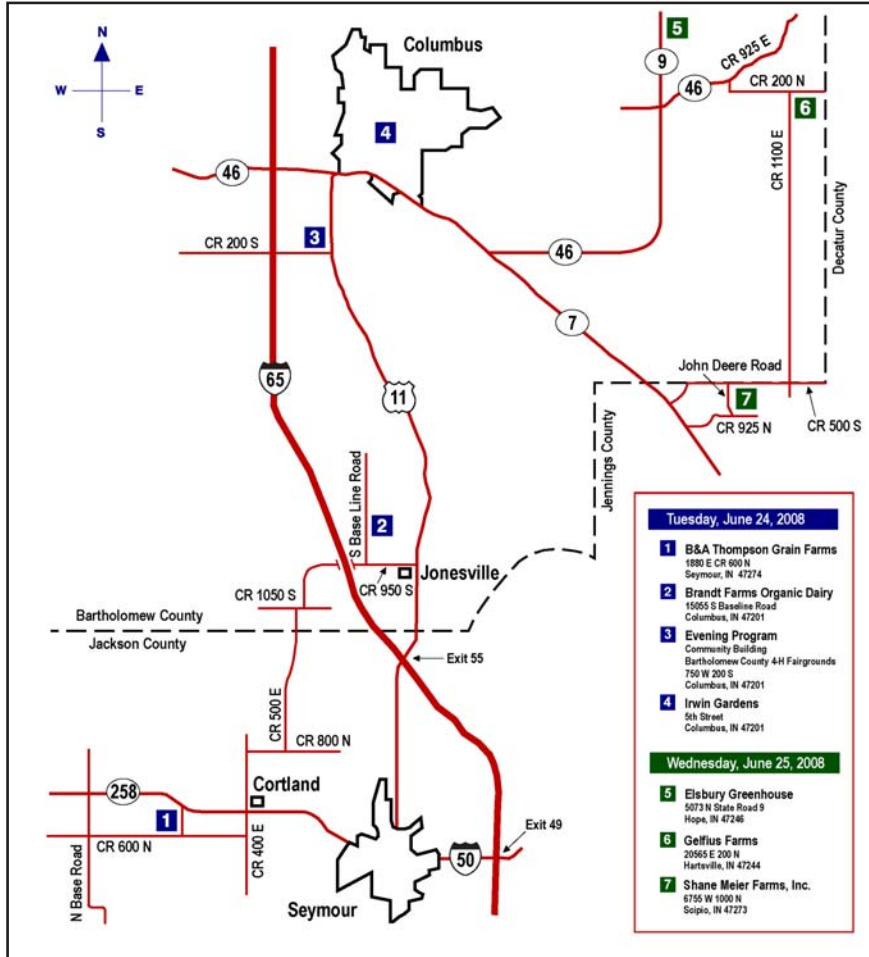
Elsbury's Greenhouses and Garden near Hope, IN was established in 1973 by Gordon and Nancy Elsbury. Today the family business attracts nearly 15,000 customers each year who purchase bedding plants, vegetables, herbs, perennials, mums, holiday poinsettias, and indoor and outdoor gardening supplies. The business includes over 65,000 square feet of indoor greenhouse production, 5 acres of field chrysanthemum production, and a garden center with an acre of retail sales space. Elsbury's uses a computer to closely monitor and maintain

temperatures, irrigation, and photo-periodic and supplemental lighting using metal halide lamps. In response to rising energy costs, Gordon installed a corn-stove that burns old corn to heat one greenhouse. They are also active in programs such as America in Bloom, Hope Chamber of Commerce, and the Columbus Visitors Center. Gordon attributes much of his success to his experiences and community involvement during nearly 10 years as a Purdue Extension educator.

**6) Gelfius Farms – Interview at 10:00 a.m. Mini-tours at 10:40 a.m. on precision planting to enhance yields and reduce seed costs, managing full-time and seasonal labor, and maintaining balance.**

Gelfius Farms balances multiple crop enterprises (processing tomatoes, seed corn, amylose corn, seed soybeans, snap green beans, and commodity winter wheat, corn, and soybeans) to maximize returns on their nearly 4,000-acre operation. This requires extraordinary organization and time management—with an eye for the critical details of the task at hand, but simultaneously thinking about tomorrow's tactics and longer-term strategies. Their many time-sensitive processes demand a reliable source of both full-time and seasonal labor, as well as the equipment to minimize down-times and the ability to multi-task. At the same time, Gelfius Farms seeks to balance work and family. The management of this operation is set to transition to the next generation in the next several years.

**Gelfius Farms – Lunch at 12:00 p.m. Agricultural Outlook Update at 12:30 p.m. by Dr. Chris Hurt, Purdue University Marketing Specialist.**



**7) Shane Meier Farms, Inc. – Interview at 1:30 p.m. Mini-tours starting at 2:15 p.m. on driving down per unit production costs by using cover crops and no-till to build up soils, machinery selection, and the computer-controlled grain drying system.**

Shane Meier believes that lower costs per unit of production can be achieved through a number of techniques, one of which is building soil potential. For several years he has been improving the productive potential of his land by using cover crops and no-till. Machinery selection provides another opportunity to drive down per unit production costs. Meier selects carefully to ensure the product chosen will get him the most for his buck, either by improving the quality of the work or speeding up the process. Additionally, with the cost of natural gas rising, Meier recently installed a computer-controlled grain drying system and will use a lower temp burner to improve outside air when needed.

**Lodging**

For information, contact the Bartholomew County Convention and Visitors Bureau at 800-468-6564 or 812-378-2622 or <http://www.columbus.in.us/>.

Contributors to this issue from the Department of Agricultural Economics:



Michael Boehlje  
Distinguished  
Professor



Lawrence DeBoer  
Professor



W. Alan Miller  
Farm Business  
Management  
Specialist